

Amendments To The Drawings:

The attached sheets of drawings include changes to FIGS. 4 and 6B. These sheets are requested to replace the original sheets of FIGS. 4 and 6B. A new sheet of drawing FIG 8 is requested to be added.

Attachment: Replacement Sheets of FIGS. 4 and 6B (2 sheets of drawing)

New Sheets of FIGS. 8 (1 sheets of drawing)

REMARKS/ARGUMENTS

Reconsideration is respectfully requested.

Claims 1-30 are pending in the present application before this amendment. By the present amendment, claims 3, 17, 24, and 29-30 have been canceled without prejudice, and claims 1, 4, 8, 10-11, 14, 22, 25, and 28 have been amended. Claims 31-34 have been added. No new matter has been added.

In the office action, the drawings stand objected for failure to show "a circuit pattern, a lead frame, an external device, a conductive bump, conductive frame is coated with a conductive material, a tape automated bonding (TAB) tape, etc."

As to ball lands, FIGS. 4 and 6B have been amended to show the ball lands.

As to conductive bump, the bump is to a ball of conductive material such as a solder or gold and this is well known by anyone of ordinary skill in the pertinent art. Therefore, it is respectfully submitted that it would not be necessary to include in the drawings the features as claimed in claims 5-6 and 19-20 such that the PCB pads are formed with a conductive bump of gold or nickel among other conductive metals having a height of 1 to 100 μm .

As to conductive frame as described includes a lead frame and a tape automated bonding (TAB) tape. The features of the lead frame is well shown in FIGS. 5A-5B and in the associated text in the specification. The features of the TAP tape are shown in FIG. 8. It is noted that the independent claims 1 and 10 are now limited to having either the lead frame or a TAP tape in the package.

The applicant believes that the present amendments to FIGS. 4 and 6B and addition of FIG. 8 will overcome the present objection to drawings. Nevertheless, in

case the examiner is of the opinion that further amendments to drawings is necessary, the applicant respectfully request specific guidance.

In the office action, claims 8 and 22 stand objected for reciting "alloy 42" which, according to the examiner, is unclear in meaning and may be a trademark.

The "alloy 42" is not a trademark but is an industry word well known to those persons skilled in the pertinent art as referring to a type of a nickel iron alloy. Accordingly, claims 8 and 22 have been amended to clarify this. An alloy 42, as known to a person having an ordinary skill in the art, indicates for example a mixed alloy of Ni (nickel) and Fe (iron) in a ratio of 42:58 by weight %. Claims 33-34 have been added to recite this feature. Accordingly, withdrawal of the objection is respectfully requested.

The applicant respectfully notes that no new matter has been added in the amendments to paragraph in the specification page 13, lines 3-12. This paragraph has been amended to merely clarify the elements that were already disclosed and claimed in the originally filed claims 14 and 28, which are part of the original disclosure.

In the office action, claims 1-2, 16, and 29-30 stand rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Nos. 6,084,780 (Happoya) in view of 5,438,224 (Papageorge). The "et al." suffix in a reference name is omitted in this paper.

In the office action, claims 3-15 and 17-28 are indicated as being allowable if they are written in independent form.

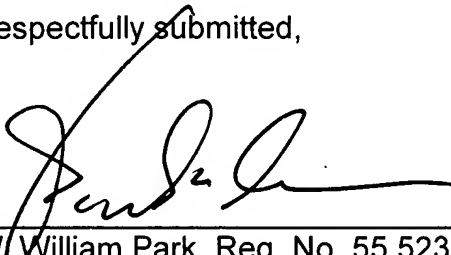
Happoya discloses two layered printed circuit board structure on which to mount components and this is substantially different from the claimed invention that teaches, inter alia, stacking two semiconductor chips or packages right on top of each other with a conductive frame (such as a lead frame or a tape automated bonding TAB) between

the two. In this regard, the applicant respectfully acknowledges the examiner's remarks that claims 3, 10, 17, and 24 are allowable that the cited references do not disclose the limitations of claims 3 and 17 (which are identical and directed to a lead frame) and of the limitations claims 17 and 24 (which are identical and directed to a TAB).

Applicant however notes that the above limitations of the allowable claims 3, 10, 16 and 24 are still allowable when incorporated into claim 1 without including the limitations of the any of the respective intervening claims 2 and 16. The BGA package of claim 2 and the PSOP package of claim 16 are not the necessary to overcome the cited references.

For the reasons set forth above, the applicant respectfully submits that claims 1-2, 4-16, 18-23, 25-28, and 31-34, are in condition for allowance. Accordingly, the applicant respectfully requests a Notice of Allowance in the next action. This amendment is considered to be responsive to all points raised in the office action. Should the Examiner have any remaining questions or concerns, the Examiner is encouraged to contact the undersigned attorney by telephone to expeditiously resolve such concerns.

Respectfully submitted,



Dated: September 9, 2005

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APPENDIX OF ATTACHMENTS

Application Serial No. 10/619,704
Reply to office action of June 15, 2005

REPLACEMENT Sheets of FIGS. 4 and 6B

and

NEW Sheet of FIG. 8

(a total of THREE sheets of drawing)